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Yugoslavia's Feed Industry

Netherlands Farm Trade

Far East Soybean Markets

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In this issue:

This week's cover:

These spring tulips in Haarlem are part of an important commercial crop for the Dutch, who have been exporting bulbs for years. More about trade of Dutch farm products on page 5.

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Yugoslavia'

By FRANK W. EHMAN
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The mixed feed industry of Yugoslavia is making an impressive growth in response to enlarged feeding operations now common throughout the commercial livestock and poultry producing areas of the country. The new development requires sizable imports of protein supplements to balance locally produced concentrates in the feeding rations. So far at least, most of these supplements have come from the United States in the form of soybean meal.

Yugoslavia is basically a corn-livestock country. Last year, it harvested an estimated 268 million bushels of corn from 6,175,000 acres. Most of the crop will go into cattle and hog

Modernization and expansion of livestock operations have boosted production of feeds in Yugoslavia. But exporters of feed ingredients—notably the United States—still have a good market there.

rospering Mixed Feed Industry

feed, while about 15 million bushels will be exported. The long-term goal for corn production is a reported 367.5 million bushels from 6.25 million acres. This amount is calculated to cover domestic requirements and permit annual exports of about 110 million bushels.

Other leading Yugoslav crops include wheat, sugarbeets, sunflowers, minor feedgrains, and legume hay, but it is the sunflower crop that provides most of the domestically produced protein feed. During 1968, Yugoslavia harvested 340,000 short tons of sunflowerseed from 402,000 acres. The 91,900 short tons of meal from this crop (264,480 tons seed crushed at a 34-percent meal outturn) is expected to supply about 43 percent of the meal requirements of the feed industry for the year. The remainder will be met by imports.

During 1968, Yugoslavia imported 99,545 short tons of soybean meal from the United States. Other meal imports included 34,065 tons of peanut meal from India and the equivalent of 10,430 tons of meal crushed from sunflowerseed imported from the USSR. During 1967, Yugoslavia imported 171,910 short tons of oilseed meals—157,220 tons of it being soybean meal from the United States.

Size of livestock industry

Importing vegetable seed meals in these amounts is something relatively new in Yugoslavia and reflects the country's growing livestock and poultry production. Total livestock numbers in Yugoslavia on January 15,1969, included 5.27 million cattle, calves, and buffaloes; 5.1 million hogs; and 9.72 million sheep. Total red meat production in 1968 is estimated at about 690,000 short tons. Of this amount, 352,640 tons was pork; 282,475 tons beef and veal; and 55,100 tons mutton, lamb and goat. The total production compares to only 410,200 tons in 1958, a 68-percent gain in red meat output.

While most of Yugoslavia's livestock is grown on the small private farms, commercial production of cattle and hogs centers in the Vojvodina—the so-called breadbasket of the country. Lying adjacent to the Hungarian and Romanian borders, this relatively level and fertile land is now the area where the large socialist farms (some running over 100,000 acres) produce pork, baby beef, and veal in highly sophisticated feeding operations. Here it is that most of the improved feeder cattle and hogs are found and where virtually all of the quality livestock and meat is produced for export.

According to a leading Yugoslav agriculturist, the country provides 750,000 quality feeders annually. These animals come from an improved national herd which includes roughly 900,000 Simmental, 200,000 Holsteins, 100,000 Montafin, and 50,000 Red Danish, Jersey, etc. An additional 1.25 million poor-quality nondescript animals scattered throughout the more remote areas complete the country's total cow herd. However, the offspring of the latter are consumed locally and some are exported to neighboring countries.

Feedlots like this modern one in Vojvodina are becoming more and more representative of livestock operations throughout Yugoslavia. Here mixed feed is being augered into bunkers.

Most of the commercial stock is fed under roof, confined to pens or stanchions. Some farms let the feeders run into outdoor lots, and milk-fed vealers are immobilized in small wooden cubicles. Of the so-called baby beef, about one-half million are bull calves fed out to 990 pounds at about 16 months, while the approximately one-quarter million females are usually finished at around 920 pounds.

Producers of quality beef have the assurance of a guaranteed support price, currently 23.6 cents per pound for first grade (A1) and 22.1 cents for second grade (No. 1) liveweight. Lighter weights command 26.9 cents per pound for 440- to 484-lb. animals and 25.5 cents for 390- to 440-lb.

Swine production on the large commercial farms has also reached a high level of development. Some socialist farms, with as many as 8,000 to 10,000 sows, are providing an average of a ton of dressed pork per sow annually. These sows, under the most modern care and management, are averaging 2.3 litters and 19 weaned pigs per year. Breeding stock is meat type and the sows of Large White/Landrace origin are crossed with Landrace boars. Killing weights of 220 pounds are attained in 6 months or less. Support prices for meat-type hogs vary from $380 to $424 per ton depending upon grade and weight.

The poultry industry has also grown in recent years. Poultry numbers on farms January 15, 1968, totaled an estimated 40 million birds. During 1967, meat production of 94,500 tons and egg production of 2.3 million was up 7.5 and 6.4 percent, respectively, over the previous year.

It is, of course, on the large socialist farms that modern large-scale poultry operations are located and where usage of mixed feeds especially formulated for broilers or laying hens has become sizable. For example, one such farm produced 2 million broilers in 1967 while another housed 200,000 layers and planned to double the size of the operation in the near future.

Modernization balances rations

Adoption of modern feeding practices, particularly in the large-size socialist farms, has emphasized balanced rations especially formulated to the specific operation. As a result, the use of protein meals and feed additives has increased rapidly in the past few years.

About two-thirds of prepared mixed feeds are being used by large commercial producers and the balance by private farms. About 40 percent is going into hog feed, 35 percent to cattle and sheep, and 25 percent to poultry. Of the various meals, soybean meal and fishmeal are fed mainly to poultry but also some to brood sows and unweaned pigs. Sunflower meal is

fed to hogs and cattle, and peanut meal to cattle. Alfalfa meal, when used, constitutes up to 5 percent of poultry and hog rations and 15 percent of cattle and sheep rations, but the trend is to increase these proportions somewhat. Some urea and considerable quantities of nonfat dry milk are also used.

Computers are now being used to determine rations based upon cost and nutritive value. Soybean meal, fishmeal, peanut meal, and most of the urea are imported. The first two are just for poultry while peanut meal is limited to cattle.

Excellent conversion is being achieved—2.2 to 1 for broilers and 3.5 to 1 for fattening hogs. Baby beeves finish out at 925 pounds at 16 months old. One large farm which is using a computer is feeding 12,000 baby beeves, 60,000 hogs, and 2.5 million broilers per year. Its own mixing plant turns out 60,000 metric tons of mixed feed annually, and its own slaughterhouse handles 150,000 hogs, 35,000 beeves, and 3 million chickens. Its dairy plant processes 70,000 liters of milk daily, and the sugar mill handles 300,000 tons of beets annually. Field operations include 32,000 acres of corn, 25,000 acres of wheat, 11,250 acres of sugar beets, 8,750 acres of alfalfa and/or silage corn, 750 acres of vineyards, and 1,250 acres of fish ponds. All feed is prepared on the farm mostly from its own production but soybean meal, fishmeal, minerals, vitamins, and antibiotics must be purchased.

Mixed feed production

Greater need for improved efficiency was largely responsible for the rapid growth of the mixed feed industry. In 1954, there was only one factory—now there are many totaling a mixing capacity of 1.76 million short tons per year. This is also a fair gage of current consumption, but experts predict that total mixed feed consumption will reach 3.3 million tons annually within a very few years.

Capacity of individual mills is increasing. About one-third of the country's total mixed feed production is currently handled by the largest mills rated at 66,000 tons annually. Smaller mills running from 11,000 to 33,000 tons per year produce the balance. Each plant uses its own feed formulations following minimum standards set by a 1965 law. All meal is bagged, but studies are being made to switch to bulk handling. Mixed feed prices are free.

Domestic crops supply most of the feed ingredients with grain concentrates, largely ground corn, in ample supply. In addition, there is sunflower meal, alfalfa meal, wheat bran, legume hay, beet tops, and sugarbeet pulp. Small amounts of soybeans, cottonseed, and miscellaneous oilseeds also crushed do not contribute significantly to feed supplies.

The main oilseed being crushed is sunflowerseed. The present crushing capacity of an estimated 330,000 short tons of seed is roughly equivalent to the country's current sunflowerseed harvest. Hence, it does tend to limit seed imports. Another development is the recent introduction of large alfalfa driers for producing bagged alfalfa meal. There are now 18 dehydrators capable of producing a total of 50 tons of alfalfa driers for producing bagged alfalfa meal. There are now 18 deyhdrators capable of producing a total of 50 tons of alfalfa flour per hour. Working 1,600 to 1,800 hours per year, these machines can produce 83,000 to 89,000 tons of flour annually. Flour is becoming an important ingredient.

Future imports required

For the foreseeable future, Yugoslavia will need to continue importing oilseed meal—including soybean meal from the United States. While it will continue to increase its sunflower production, this crop will never close the protein deficiency gap on a nutritional basis. And, the need for greater meal supplies will continue to increase as poultry and livestock production expands and as, perhaps, even higher percentages of protein supplements are used in feeding rations.

Soybean meal imports during calendar year 1969 are forecast at about 110,000 short tons. The amount could be somewhat less if poultrymen choose to use larger proportions of the very competitively priced fishmeal in their rations. At the same time, the amount could increase somewhat if volume operations in the country's total farm plant increase this year as compared to 1968. Success or failure in dealing with export problems of livestock and meat to EC countries is an important factor.

Meanwhile, a new soybean mill now being readied at Obrenovac could very possibly require the importation of U.S. soybeans. Its beginning capacity of 12,000 tons can easily crush Yugoslavia's small domestic soybean crop, but foreign supplies would be needed in order to operate at capacity. This plant will produce edible grade soy-protein products with an ultimate capacity of 110,000 tons.

In the longer view, it is possible that Yugoslavia may eventually switch some sunflower land to soybeans. Relatively good yields are obtainable in Yugoslavia; and the requirements for the new mill, as well as for the livestock feeding industry generally, may combine to encourage soybean production. However, until such a change does come about, Yugoslavia will need to depend on imports.

German Secretary on Dairy

The present dairy surplus in the European Community amounts to between 5 million and 6 million metric tons of milk equivalents and is increasing at the rate of 0.8 million to 1 million metric tons annually. In an attempt to curb the buildup, West Germany's Secretary of Agriculture H. Hoecherl has made the following proposals.

A Community target price for dairy products should be guaranteed for a specified quantity; for example, an amount equal to consumption of milk equivalents within the Community area. Producers who supply dairies over and above this quota should be charged for surplus deliveries at about DM 0.20 to 0.22 per kilogram (US$2.27 to $2.49 per 100 lb.) paid directly to the Common Market fund as the producers' contribution.

However, this charge should be collected on the total quantity of milk delivered to the dairies, according to Secretary Hoecherl. The charge would then amount to about 45 U.S. cents per 100 pounds of the total quantity of milk delivered to the dairy during the dairy year 1969-70. To cover costs of 1968-69 surpluses, an additional 90 cents per 100 pounds should be charged for milk supplied to dairies during 1968-69 for a total charge of about $1.35 per 100 pounds. In subsequent years the charge should be increased in proportion to the rate of increase in milk deliveries.

Secretary Hoecherl also feels the quota-price system should be supported by other measures. For example, every farmer willing to quit milk production altogether should be paid a premium of $100 to $150 per cow. He added that a school milk program should be introduced in all member countries.

—Based on dispatch from GEORGE A. PARKS
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Netherlands 1968 Agricultural Exports—A New High

By BRICE K. MEEKER
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In 1968, the Netherlands farmer continued to exploit his agricultural technical superiority vis-a-vis his partners in the European Community and to maximize the advantages of his country's position as a maritime trading power. Agricultural exports—a key to the Netherlands agricultural situation—rose to the equivalent of more than US$2.3 billion, a new high and 15 percent more than the previous year.

The import bill for agricultural products to fuel the agricultural export industry and to help feed the population rose 11 percent in 1968 to $1.45 billion. The United States supplied about one-fifth of these imports.

Netherlands 1968 production of arable crops, including hay, was not greatly different in quantity from 1967 production. But output of conversion agricultural products—which is dependent on imported raw materials—was up. Production of milk rose 2.9 percent; production of pork rose 13.5 percent; production of poultry meat rose 6.6 percent; and the decline in egg production was arrested.

Dutch agriculture is in an excellent position as the most efficient producer of a wide range of products under the umbrella of the Common Market Agricultural Policy (CAP). The average farm size is about the average for the European Community and average production (either per man or per acre) is high. This efficiency is particularly necessary since the cost of inputs for the conversion industries of pork, poultry, and eggs is higher than for the inland EC farmers who utilize a higher proportion of home-grown feed.

In 1969, the Netherlands will continue to increase imports of agricultural products—raw, semiprocessed, and processed—partly in response to a gradually improving standard of living and a growing population and partly to feed the export-oriented poultry and meat industries. U.S. farm exports to the Netherlands, however, may continue to slide from the 1966 fiscal year peak, as import changes of EC regulations make U.S. products more expensive compared with EC production and as EC agricultural production expands.

Agriculture's importance in total trade

Aided by the economic recovery in West Germany, which enlarged the German demand for Dutch products, total Netherlands exports in 1968 rose by 14 percent to a record $8.3 billion, 63 percent of which went to EC countries. Total imports rose 11 percent to $9.23 billion. Agricultural products made up 28 percent of exports and 17 percent of imports.

Various commodity groups contributed to the 15-percent increase in agricultural exports in 1968. Exports of arable farming products rose 19 percent to $635 million. Cattle, meat, poultry, and egg exports rose 25 percent to $442 million. There was also a 6-percent increase in exports of dairy products to $331.4 million and a 7-percent increase in exports of horticultural products to $524.8 million. The increase in arable farming exports was due largely to greater sales of grains and products of the food industry. The increases in cattle and meat exports came from larger shipments of pork, live pigs, beef, and veal to EC countries.

West Germany, which remains the best export market for Netherlands agricultural products, took 35 percent of these exports in 1968. Other EC countries, particularly France, took more than they did in 1967. Some exports to third countries receive subsidies. Subsidized lard exports to the United Kingdom and poultry exports to Switzerland, in part, led the United States to embark on subsidy programs of its own to these markets.

The extent to which Dutch agricultural exports normally depend on imports as source material is indicated below.

NETHERLANDS: ORIGIN OF 1967 AGRICULTURAL EXPORTS

Source	Produce from— Arable farming	Livestock	Horticulture	Total
	Million	*Million*	*Million*	*Million*
Dutch:	*dollars*	*dollars*	*dollars*	*dollars*
Unprocessed ..	111.8	342.0	422.9	876.7
Processed	142.1	475.5	53.1	670.7
Non-Dutch	409.7	38.7	6.5	454.9
Total	663.6	856.2	482.5	2,002.3

U.S. sales outlook for 1969

Netherlands agricultural imports are concentrated in two categories. In the first, which makes up the bulk of both volume and value of import trade, are bulk cargoes of feedgrains, grain substitutes, and other feed ingredients. The other category comprises over 100 items imported from the United States in 1967 in volumes valued at $100,000 or more.

Trade in items in the first group is responsive to the needs of the livestock feed industry and is the subject of unrelenting negotiation and control by the EC. At present this trade is circumscribed to a great degree by the EC Common Agricultural Policy for Grains.

Most items in the second group are susceptible to market development activities on the part of government and private individuals.

Although, in general, Netherlands imports of agricultural commodities will continue at a high level in 1969, the continued importation of grains and feed ingredients from countries outside the EC—notably the United States—may be affected by increased offerings of wheat and feedgrains from France. The importation of oilseeds and feed ingredients from oil-bearing products could also be affected by an internal tax of $30 per metric ton on meal and $60 on oil proposed by EC Commissioner Sicco Mansholt in December 1968. If enacted, such a tax would have a deleterious effect on U.S. exports and would drastically change the whole feed-ingredient picture. The United States has made a strong protest against this proposal, pointing out that it impairs U.S. concessions in the Dillion round.

Sidelight on structural reform

One way to measure the progress of structural reform of agriculture is to look at the age of farm manager-owners and determine how many may not be replaced on retirement.

Of the 165,265 farmers or market gardeners surveyed in the May 1968 census, 77,809—47 percent—were 50 years or more of age. Of these, only 37,238 operators had sons ready to take over the farm. Of these 37,238 sons, only about 8,000 can expect to inherit and manage viable enterprises of 50 acres or more.

Three Stages in Far East Soybean Markets

By CALVIN C. SPILSBURY
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Today soybean markets in the Far East, the original home of the soybean, have emerged from time-honored Eastern patterns and have differentiated into what may be called three types—traditional, transitional, and industrial.

In traditional markets soybeans continue to be sold and used chiefly for human protein foods, and volumes traded are comparatively small. Also, volumes processed by modern methods are small. Transitional markets are characterized by larger volumes, the modern processing of considerable quantities of soybeans for oil for human consumption, and the developing use of soybean meal for human food products and for high-protein animal feeds for emerging livestock and poultry industries. In industrial markets very large quantities of soybeans are efficiently imported, marketed, and processed for oils and fats for human use and for meal for vigorous livestock industries; at the same time soybeans are still used in traditional foods and soybean meal is used to make a variety of new food products.

Three countries in the Far East that import U.S. soybeans give representative pictures of the three market stages.

Republic of Korea

Korea is a traditional soybean market. Nearly all soybeans are processed into human protein foods such as synthetic milk, flour, paste for soup, curd for consumption in more solid form, mash, sprouted beans, soy sauce, and even fermented "cheese".

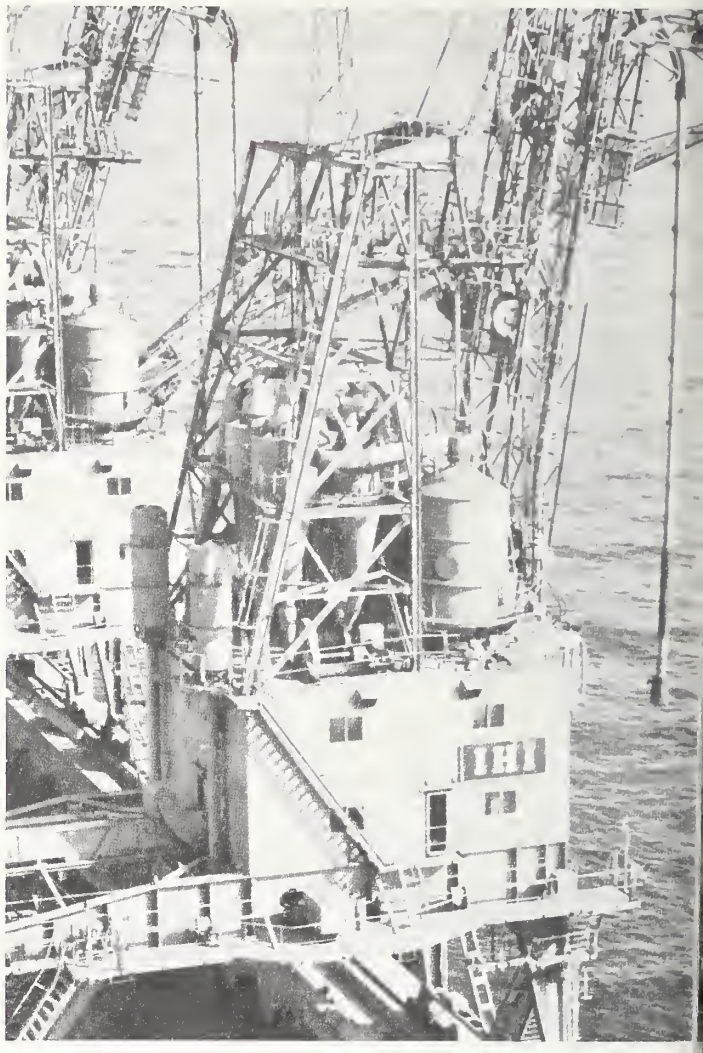
Volumes traded are small. About 60 to 70 percent of the domestic crop of about 200,000 metric tons annually is sold in the country's food markets directly to private and commercial consumers. The rest of the crop is used for human food and animal feed on the farms that grow the beans. Total imports in 1968 were 28,000 metric tons—all from the United States.

Korea's processing equipment, handling and marketing procedures, and import facilities for soybeans are in keeping with its old-line use of soybeans.

Most processing of soybeans for human use is done in individual homes by housewives. For example, nearly every Korean family makes a product known as kochojang, or hot bean mash, which consists of powdered, fermented soybeans mixed with red pepper, salt, and water. Some foodmaking (soybean curd and soy sauce) is organized into cottage industry.

But large-scale production of traditional foods is developing. Most of the soybeans imported from the United States are made into traditional soybean foods for rations for the Korean army by one large food factory.

Crushing soybeans and other oilseeds for oil is done by about 100 small mills throughout the country. The estimated capacity of all the mills added together is about 200,000 metric tons per year of oilseeds of all types—soybean, rapeseed, cottonseed, sunflowerseed, sesame, pepperseed, and others. The mills use screw presses, hydraulic presses powered by steam or internal combustion engines, or batch solvent extraction. The largest mills have capacities less than 25 tons per day.

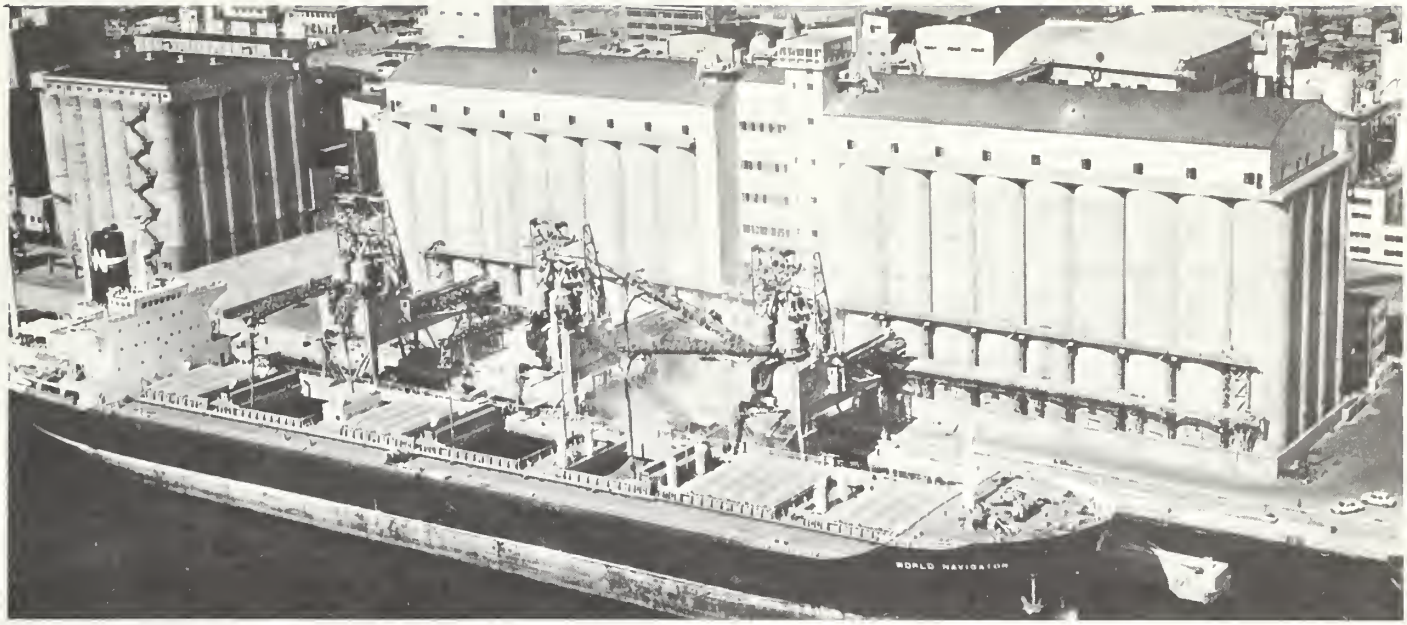


Because most soybean foods are consumed in the home where they are made and because the quantity of soybean oil processed is so small, handling and marketing procedures for soybean products are on such a limited scale they are necessarily inefficient. Import facilities, such as modern elevators situated on deep water with equipment for rapidly discharging ships' cargoes, are equally lacking.

Korea, however, may be on the verge of changing to a transitional market. The need for vegetable oils is increasing, and a modern continuous-solvent oil-extraction plant is being planned for construction that would have a capacity of 200 tons per day. At the same time, the desire to expand poultry and swine production is great, and the need for large quantities of processed high-protein animal feeds is being recognized. Before long Korea may be importing 100,000 metric tons of soybeans or soybean meal a year for processing for oil and animal feed—new rather than traditional uses.

Taiwan's transitional trade

Soybeans are already a large-volume import item in Taiwan —around 400,000 metric tons annually, nearly all of which come from the United States. They are processed into edible



Far left, automatic unloading equipment (pneumatic) at new deepwater terminal at Kobe, Japan; above, ship's cargo being discharged at the new terminal; left, soybeans being bagged on dock at Koahsiung, Taiwan; below, cart train of bagged soybeans leaving Koashiung dock area.

fats and oils and meal for animal feeds. Very little of the imported soybeans are used to make traditional Far East foods. But demand for soybean meal as raw material for manufacture of traditional foods is developing.

Although Taiwan's soybean market is modern in its use of the commodity, its methods of bulk import handling, storing, shipping, marketing, and processing are transitional and sometimes not efficient industrially.

Facilities for oilseed crushing and oil extraction range from small family mills in inland villages that supply oil to local farmers to modern continuous-solvent extraction facilities that can handle from 100 to 150 tons of soybeans per day. Even in most of the larger plants equipment is heterogeneous and includes screw presses, hydraulic presses, batch-solvent units, and continuous-solvent units, often with more than one type of equipment in a mill. Plant equipment also has diverse origins—Japanese, American, German, and Taiwanese. Nearly all imported soybeans are processed in the country's 36 solvent-extraction mills, which have a total capacity of about 500,000 metric tons a year.

The larger crushing and extraction facilities are clustered around large cities—Taipei, Taichung, Tainan, and Kaohsiung. Only the last is a port, and even there no mills are located on deep water. Imported soybeans are discharged by ships' equipment onto docks, where they are bagged and then stored. Bagged beans are sent by truck or rail to inland processing plants. In this roundabout system the smooth flow of raw material is easily interrupted. Some ships trying to offload soybeans at Kaohsiung have experienced delays of up to 30 days because of lack of adequate port and storage facilities.

Less-than-maximum efficiency in import handling and distribution increases soybean costs to processing plants and therefore to the final product purchaser. Because of high costs, import demand is held down although the need is increasing for edible vegetable oils and fats and for high-protein feeds for Taiwan's expanding swine and poultry industries.

Also, distribution and marketing of soybean fats and oils would benefit from more streamlined procedures and particularly from better packaging for consumers. Faster and cheaper distribution of soybean meal would encourage the mixed feed industry, which is now small but ready to turn to larger production.

Taiwan is taking positive steps to further industrialize its

soybean handling. Perhaps most important, modern deepwater bulk discharge facilities are to be built at Kaohsiung along with storage for soybeans and grain. With the discharge bottleneck removed, extraction plants are expected to increase their capacities and efficiencies. Soybean use and imports could double in the next 5 to 10 years.

Japan's industrialized soybean mart

The giant of Far Eastern markets for U.S. soybeans is Japan. In 1968 that country imported 2.4 million metric tons of soybeans—2.0 million tons from the United States, according to sources in the Japanese Government. Soybean importers, processors, and marketmen applied a high level of technical and industrial know-how to cope with the influx and turn out soybean products within the reach of the pocketbooks of consumers. They intend to increase their efficiency in the future to handle soybean imports that are forecast to expand at about 6 to 8 percent a year.

One of the most important recent improvements in soybean logistics has been the development of modern deepwater grain and soybean terminals where soybeans can be rapidly discharged from ships' holds directly to storage, interim transportation, or crushing mills.

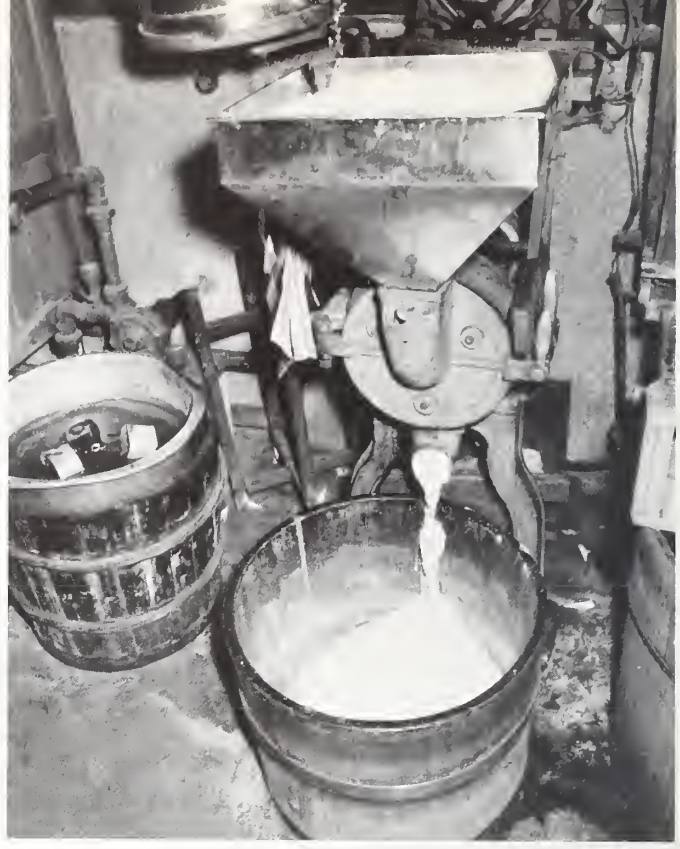
The first fast-discharge elevator on deep water for soybeans or grain was built by an American-Japanese company. Large Japanese companies handling soybeans quickly picked up the idea. At present four terminals have been built in the Tokyo and Kobe areas, and two more are under construction.

In general, the terminals are constructed so that large grain and soybean tankers can berth within range of the automatic unloading equipment of the terminal elevator. Unloading is accomplished by pneumatic suction tubes with capacities of 600 to 800 tons per hour (about 6,000 metric tons per 8-hour day). Equipment within the terminal routes the incoming material to storage silos or directly to soybean processing mills that are part of the terminal complex. Other facilities can simultaneously load soybeans into coastal barges or small freighters for cheap transport to nearby waterfront mills. Storage capacities at the new terminals range from 50,000 to 100,000 metric tons.

Another development directly tied to the new deepwater terminals is the increased use and construction of large "Panamax" soybean and grain tankers just small enough to go through the Panama Canal (40,000 to 60,000 long tons). Six of the new tankers are in service now and almost a dozen more are scheduled to go into operation during the next 2 years. Such tankers carry more cargo per trip than the smaller ships previously used and therefore cut freight costs by $2 per metric ton or more. Fast discharge at the modern Japanese terminals cuts down on roundtrip time—another cost-paring factor.

The new terminals may even help decrease costs of shipping soybeans to Korea and Taiwan, where present facilities for fast unloading of large tankers do not exist. Soybeans can be cheaply transferred at the Japanese terminals from big tankers to small ships and "coasters" for the last stage of transport.

Processing soybeans has kept technological pace with methods of import in Japan. Many large, new crushing mills have been built on harbor frontage rather than inland so that they can benefit from bulk transportation methods. The large mills are all modern continuous-solvent extraction plants and have soybean capacities ranging up to 25,000 metric tons per month of crush. The annual capacity of the 15 large, modern mills is estimated at 1.8 million tons of soybeans.



Grinding soybeans in Japanese shop for traditional use.

Japan also has about 15 mills that are less modern that use continuous and batch solvent methods. Total capacity of these plants for soybeans is 1.2 million metric tons annually. In other words, Japan's capacity for processing soybeans by all solvent extraction methods is around 3 million metric tons per year.

The total annual oilseed crushing capacity for the country for all oilseeds by all methods is about 5.5 million metric tons. This total includes the output of screw presses, hydraulic presses, and other equipment used in about 750 small mills scattered about Japan but usually in or near cities. It also includes the output of about 250 traditional mills, or "mountain mills," of tiny capacity but ingenious contrivance that survive in mountain farming communities. The capacity for all the mechanical mills in both cities and countryside is estimated at 850,000 tons a year.

The varieties, locations, and capacities of the different oil mills mirror the history of oilseed crushing in Japan and show the progression in one country from traditional methods to transitional to industrial.

The first mills in Japan were in the mountains because most oilseed crops were grown there (nuts, rapeseed, flax, etc.). They processed local farm produce in traditional ways by technically primitive methods. As Japan became more industrialized and population became concentrated in cities, new oil mills utilizing screw and hydraulic presses were built to serve the new needs. These mills were the first transitional step toward modern methods and capacities. Still later batch-solvent and finally small continuous-solvent units were installed—but still often inland. The final step to modern industrialization has been the installation of large continuous-solvent extraction mills on the waterfront for efficiency in both importing and crushing oilseeds, such as soybeans.

Cottons in World Commerce —and how they are valued

Cotton continues to be the world's most versatile fiber. It goes into items ranging from children's clothing to fish nets, mattress stuffing to surgical swabs, pillow cases to pup tents. Over the years sophisticated weaving techniques, fiber blending, and chemical treatments have multiplied the end uses of cotton fiber, but cotton's basic versatility is bred right in the field.

Hundreds of varieties of cotton are grown for world trade, each further classified into grade, staple length, strength, and fiber fineness. The number of descriptive combinations for single samples of cotton are seemingly endless and result in such names as Middling Light Spotted, 1 1/32", Micronaire 3.8, Pressley 95,000 p.s.i. (grade, staple length, fineness, strength in pounds per square inch).

Staple length is probably the most important component of cotton quality; four general categories are commercially recognized—short, medium, long, and extra long. Staple length is important because it determines the fiber's use in spinning and largely dictates the category of textile product made. Each cotton fiber, or staple, is an outgrowth of a single cell that develops in the surface layer of cells of the cottonseed. The value of any particular kind of cotton increases as the staple gets longer. In spinning, cotton fibers are paralleled into a ropelike strand which is drawn out to progressively smaller diameters, given a slight twist, and wound on bobbins. Short staples require considerable overlapping before they will lock into each other for a strong, continuous strand. Long staples, on the other hand, can be drawn out further and yet be quite strong.

Fiber lengths determine use

A variety of cotton will produce fibers classifiable within a more or less limited staple length range—short (no more than 3/4"), medium-long (13/16" to 1 3/32"), long (1 1/8" to 1 5/16"), and extra long (1 3/8" and longer). Because of differences in climate, soils, methods of production, and costs, no one country grows all varieties.

Short-staple (Asiatic) cotton makes up around 2 percent of the world's cotton and is grown almost exclusively in India, Pakistan, Burma, and Mainland China. The short thick fibers of Asiatic cotton are poorly suited for spinning but have a resistance to bending and matting that make them particularly useful in other products. They are used in mattress stuffing, batting, wadding, fillers for comforters and quilts, felt, and napped blankets. Short-fiber cotton is also useful for surgical and pharmaceutical cottons and industrial filters. It is of minor importance in world trade, frequently coming into competition with cotton wastes, linters, and synthetics for most of the above uses.

Upland cottons predominate

About 90 percent of the cotton grown and traded in the world (and just about all of that in the United States) is medium- and long-staple upland type. Nearly every cotton growing country produces some varieties of upland. The shortest upland fibers are used primarily in spinning low-count yarns for weaving into medium and heavyweight fabrics like twill and duck (for sails, tents, awnings, and tarpaulins) and some coarse sheetings. Longer staples—1" to 1 3/32"—are used for sateens and finer sheetings; and the longest of the uplands—1 1/8" and longer—traditionally are used for print cloth, poplin, and broadcloth from which are made shirts, blouses, and a wide variety of other apparel and household items. The minute differences in the length of upland staples and variances in other quality elements allow considerable substitutability in end uses.

Extra-long staple cottons—which require a hot, dry climate, irrigation, and a long growing season—are produced almost

U.S. Department of Agriculture cotton classing office in Raleigh, North Carolina. Samples of cotton spread out on tables are graded by comparing them to official standards, in boxes at right.

exclusively in Egypt, the Sudan, Peru, the Soviet Union and the United States. Best known Egyptian varieties are Giza and Menoufi. Some extra-long staples are grown in the United States in Arizona, the Pecos and El Paso areas of Texas, and in New Mexico.

These cottons spin into fine strong yarns with exceptional luster and sheerness. The highest grade cotton fabrics like poplin, broadcloth, and fine dress goods are made with them because of appearance. Fine threads and typewriter ribbons are made with extra longs because of the strength without bulk. Not surprisingly, extra-long staple cotton is the highest priced cotton in world trade, beginning at around 37 cents per pound up to more than 73 cents (c.i.f. Liverpool). This compares with a range of 25 to 38 cents for cottons of the upland types.[1]

Egypt is the largest single producer of extra-long staple cotton; the country's fertile Nile Delta is ideally suited for its growth. The Egyptians rigidly control seed and planting, grading and blending.

The Sudan, which in 1968 produced only slightly less extra-long staple cotton than Egypt, grows mostly Sakal-Lambert varieties. Most of Peru's extra-long staple cotton is Pima. Various strains differing chiefly in spinning qualities and strength are now in commercial production.

Environmental influences

After staple length, another important determinant of cotton's end use is its grade. While staple length, fiber strength, and fiber fineness are largely determined by seed variety and length of growing season, grade to a considerable extent is governed by soil types, rainfall, defoliation methods, temperature, insect damage, and method of harvesting and ginning.

Differences between two adjacent grades of cotton probably would be undetectable by the layman, but gradations can make a substantial difference in the selling price per pound. Consequently, standardized cotton classification is important as a basis for pricing and providing a means of product description for purchasers.

Universal Standards for American Upland cotton are determined under a Universal Cotton Standards Agreement between the United States and 13 cotton associations and exchanges in 10 cotton consuming countries. Members are:

Japan Spinners' Association—Osaka, Japan
Association Française du Commerce des Cotons—Le Havre, France
Associazione Cotoniera Italiana—Milan, Italy
Bremer Baumwollbörse—Bremen, Germany
Centro Algodonero Nacional—Barcelona, Spain
De Vereeniging voor den Katoesnhandel, Rotterdam—Rotterdam, the Netherlands
Gdynia Cotton Association—Gdynia, Poland
Marche de Coton de Gand—Ghent, Belgium
Osaka Sampin Exchange—Osaka, Japan
The British Spinners' and Doublers' Association—Manchester, England
The East India Cotton Association, Ltd.—Bombay, India
The Japan Cotton Traders' Association—Osaka, Japan
The Liverpool Cotton Association, Ltd.—Liverpool, England

The latest standards for grade were set in June 1963 and reconfirmed in 1965 and 1968 at the Standards Committee's meetings in the United States. For the recurring meetings, cotton specialists in USDA's Consumer and Marketing Service make up boxed samples of 15 of the 40 grades of upland cotton; the others are descriptive and are evaluated as well. Each box is filled with 12 samples of cotton representing the full quality range within a grade and put before the international panel for inspection.

Boxes approved as representative of the cotton grades become the official physical standards and are used as guides in making up some 10,000 additional boxes that are distributed and sold to cotton classers and traders around the world. (The U.S. Department of Agriculture has 29 permanent and 10 seasonal official classing offices in this country where growers and merchants may send cotton samples for classification.)

Copies of the standard boxes are made up every year because passing time and exposure to light and air gradually distort the cotton's color.

Color is at its best when the bolls first open. But exposure to weather gradually darkens cotton in the bolls, and most cotton sold has some slight color. The degree of darkness places cotton into the following color groups: White, Light Gray, Gray, Light Spotted, Spotted, Tinged, and Yellow Stained. Harvesting and other factors usually leave the cotton contaminated by broken leaves and other materials called "trash"—stems, bark, grass, sand, or dust. This leaf and trash in cotton can add to manufacturing costs because they must be removed for a clean-appearing yarn.

White upland cotton is placed into 13 grades. Strict Good Middling is the brightest and freest of trash, then the grades drop through Good Middling, Strict Middling, Middling Plus, Middling, Strict Low Middling Plus, Strict Low Middling, Low Middling Plus, Low Middling, Strict Good Ordinary Plus, Strict Good Ordinary, Good Ordinary Plus, and Good Ordinary. The other color groups do not have the full range of grades.

A remarkably large proportion of cotton classing depends on the sense of touch, visual judgment, and experience of trained classers. No one has yet invented a device which will class cotton as rapidly and accurately as humans, even though the volume of cotton to be classed has created a need. Cotton colorimeters—which, as they imply, detect and record the color of cotton—have been used by the U.S. Department of Agriculture for some time as guides in preparing standards. Air-flow instruments measure fiber fineness (in micronaire readings), and Pressley testers measure the fiber's breaking strength. But a complete, high-speed, high-volume mechanical system for cotton classing is still in the developmental stage. —M. S.

[1] "World Production and Trade Trends in Extra-Long Staple Cotton," Foreign Agricultural Circular FC 20, December 1968.

Israel's Cotton Acreage in 1969

The cotton planting season has begun in Israel with total cotton acreage at a record high of 82,000 acres for the forthcoming season, compared with last season's 75,000 acres. Irrigated acreage is estimated at 67,000 acres, a 5-percent increase from the irrigated acreage in 1968-69. Nonirrigated land is placed at 15,000 acres, an increase of more than one-fourth from that of the previous year.

Acreage increases are attributed to the intensive December and January rains; land that was intended for forage crops was not used and is now being planted to cotton.

Third Good Farm Year in a Row Seen for West Europe

By FLETCHER POPE, JR.
Foreign Regional Analysis Division
Economic Research Service

In 1968 Western Europe[1] had its second consecutive record agricultural year, and present prospects point to another good year in 1969. As a result, U.S. agricultural exports to this region probably will not be greatly different from the rather depressed level of 1968.

The index of agricultural production for Western Europe as a whole, as well as for the European Community, increased to 131 in 1968 (1957-59=100)—about 2 percent above the previous record level achieved in 1967. Significant changes from the year before included increases in France, Spain, Norway, and Denmark and decreases in Italy and Greece. In the United Kingdom, West Germany, and most of the other countries production was within 2 or 3 percent of that in 1967.

EC led livestock increase

Expanded production of livestock and poultry products was primarily responsible for Western Europe's new record agricultural output in 1968. Both pork and poultry meat production increased 6 percent, while increases for beef and veal and for milk were about 2 percent. Most of the gains in output of animal products took place in the EC. A large share of the increase in beef and veal and in milk occurred in France, and a major part of the increase in pork production was in West Germany.

Dairy problem worsened

The problem of surplus dairy products in Western Europe became more troublesome in 1968. Most of the surplus milk was used for butter; stocks of butter, particularly in the EC, reached extremely high levels.

Measures taken or considered during 1968 to alleviate the problem included: Incentives for culling dairy herds; export subsidies on dairy products; sale of dairy products to selected groups at reduced prices; and greater use of dairy products in commercial livestock and poultry feeds. As a result, some reduction in butter stocks was realized in a few countries; in general, however, the dairy-surplus problem intensified.

Grain harvest largest ever

The grain harvest in 1968 exceeded the 1967 record by almost 3 million metric tons, or about 2 percent; grain area was also up about 2 percent. Most of the grain was accounted for by a record corn crop of over 12 million tons, although sizable increases also occurred in barley and wheat.

Weather during the growing season was generally favorable, but cool, rainy weather during harvest impaired grain quality in several countries—especially in West Germany and the United Kingdom; barley and wheat suffered the most damage.

Several countries had significant changes in grain output compared with the 1967 harvest. In France, Spain, and West Germany, gains of 1.4 million tons, 1.3 million tons, and 1.0 million tons were realized. In the United Kingdom, grain output declined about 1.2 million tons. Greece had about a 700,000-ton decrease (20 percent), while the harvest in Denmark rose by more than 600,000 tons (10 percent).

More sugarbeets, less potatoes

Sugarbeet production reached a new high in 1968, 4 percent above the previous record in 1967, while the potato crop was smaller by 4 percent. For both these crops changes in output were due primarily to changes in area.

The record sugarbeet harvest was mostly attributable to France, which had a crop over a third larger than in 1967; this more than offset a decrease of about 15 percent in Italy. The decline in potato output was largely the result of a 10-percent decrease in the West German crop.

Outlook for 1969

Agricultural production in Western Europe should remain at about the same level this year as in 1968, although the rate of increase in output of livestock and poultry products is expected to slow appreciably.

Another large grain crop approximating the 1967 harvest seems probable if weather is normal during the rest of the growing season. This grain-output projection assumes a grain area about equal to the nearly 104 million acres in 1968 and a yield (based on the 1950-66 trend) of 42 bushels per acre.

The near-term outlook for agricultural exports to Western Europe is not too bright, from either the demand or competition standpoint. In addition, the strike at the Atlantic coast and Gulf coast ports caused U.S. agricultural exports to get off to a bad start this year.

The expected slowdown in the increase in livestock and poultry output in Western Europe will likely dampen feed demand. With the record feedgrain harvest in 1968, prospects for another good crop in 1969, and the large carryover of wheat from the 1968 crop, West European feedgrain imports probably will decline in 1969. Imports of oilseeds and oilseed products and of tobacco should continue at recent high levels.

Finally, competition for the West European market is expected to be keen, particularly for grains and oilseeds, since supplies are abundant in most exporting countries.

WESTERN EUROPE: PRODUCTION OF SELECTED AGRICULTURAL COMMODITIES

Commodity	Average 1960-64	1965	1966	1967	1968
	Million metric tons	*Million metric tons*	*Million metric tons*	*Million metric tons*	*Million metric tons*
All grains	95.9	105.5	102.6	117.3	120.0
Wheat	39.0	45.3	39.9	46.8	47.3
Barley	25.2	30.3	31.9	36.9	37.6
Corn	8.5	8.9	10.3	10.6	12.2
Potatoes	72.1	60.5	61.5	65.9	63.2
Sugarbeets	57.1	59.8	61.8	68.5	71.4
Beef and veal ...	5.7	5.5	6.0	6.3	6.4
Pork	6.7	7.5	7.5	7.6	8.1
Mutton and lamb.	.7	.7	.8	.8	.7
Poultry meat	1.5	2.0	2.2	2.4	2.5
Milk, cow's	100.5	107.7	110.0	113.3	115.9

[1] Includes 17 countries—Austria, Belgium, Denmark, Finland, France, West Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

New Frontiers in the Foreign Market fo

By R. L. BEUKENKAMP
Coordinator for Export Services
Foreign Agricultural Service

I would like to challenge the U.S. trade to do a more aggressive job in food and agricultural exports. Don't get me wrong. We have been doing a good job; food and agricultural exports have climbed from about $3.5 billion to more than $6 billion since 1956. But we haven't done nearly as good a job as we might, in view of the many export opportunities that exist for American foods.

The fact that—in dollar terms—only 4 percent of our gross national product is exported suggests that we are not taking full advantage of our export opportunities, including those for agricultural products. The USSR is the only developed nation in the world having a lower ratio of total exports to GNP. When it comes to agricultural exports, small countries like Israel and Denmark ship out a much larger share of their farm output and spend a much higher proportion of their national budgets on promotion of food and agricultural exports than we do.

The need and the opportunities

Certainly, the United States has never had a greater need for increasing its food and agricultural exports. The nation as a whole needs increased exports to help correct its critical balance of trade and balance of payments with foreign countries. The agribusiness community, which makes up 30 percent of our population, needs exports to increase the income of the farmer, the processor, and the many industries that depend on the food and agricultural market. The individual entrepreneur needs exports for bigger sales volume and profit; the additional sales given by exports lower his firm's per unit cost and thus improve its competitive position in the United States.

Most of our agricultural export push in recent years has been toward Western Europe and Japan, the major markets for bulk commodities like feedgrains, wheat, soybeans, rice, cotton, and tobacco. Considerable progress has been made there; but many potentials in other markets and for other products are being passed up.

Some "pocket" markets like the Caribbean, offer opportunities through their important tourist trade; many of their residents, too, have strong purchasing power and equally strong interest in the quality products and convenience foods we are in a position to supply. Certain small markets like Thailand and Taiwan are on the road to becoming big markets later on. Some distant markets could become closer and more accessible as air transportation and containerized shipments continue to develop—if we keep in touch with them now. Some well-known markets have other interesting possibilities that we have only recently begun to explore, for sales of processed foods, certain fresh fruits and vegetables, beef cuts, and other products.

Doing business in the United States, the most affluent common market in the world, has both blessings and drawbacks. Our advanced technology enables us to grow and process quality products for which good markets could be developed overseas; but many of us are too easily satisfied with our good markets in the United States. "Why export?" we say. We should not forget: even a rich nation like ours has import needs, and we are an excellent market for foreign products that complement or supplement our own output. The more we are able to export, the more we will be able to import. And it works the other way too, for world trade can be a benign circle—if we buy what other countries can produce best, they will be able to buy what we ourselves have to offer. We all benefit that way.

The job that is being done

What I have written may give the impression that little has been achieved. This is not so. The 60 or more trade associations cooperating with FAS in export development in 70 countries around the world have done an excellent job of bringing American products to the attention of overseas buyers and consumers. The U.S. agricultural attachés and the FAS International Trade Fairs Division—participating in trade shows, "in-store" promotions, seminars, and other activities—have aided this development.

For example, a three-way project of FAS, the Florida Citrus Commission, and European distributors—begun only 3 years ago—has developed a substantial West European business for single-strength and frozen-concentrate orange juice. These products won quick acceptance by their convenience and quality.

Other examples: As dividends from last year's food promotions in Japan, we

States work closely with USDA and FAS to promote exports. At February meeting (l. to r.): Ivan Johnson, FAS; D. E. Wilkinson, Wisconsin; Gene Carroll, North Carolina; Stan Cath, National Association of State Departments of Agriculture; Ed Hansen, states relations liaison, USDA; R. L. Beukenkamp, FAS; Jim Oosten, Illinois; Jay Glatt, Oregon; Sid Miller, Maryland. Messrs. Wilkinson, Carroll, Glatt, Miller are NASDA's international trade committee.

are now exporting beef cuts there; also, a special soybean variety especially suited to the production of Japanese soy foods; quality cheeses from Wisconsin; broomcorn from Colorado; and other products. U.S. iceberg lettuce, strawberries, celery, radishes, and many other fresh items are being flown to Europe and are finding a welcome and profitable market. An Illinois State group, through its participation in the international trade fair at Munich, Germany, discovered a good export market for American horseradish. It is now selling hundreds of tons to epicures in Europe.

And then there is the experience of the Virginia entrepreneur who has developed a good business for eels in the European market. Most Americans are unfamiliar with eels as a food, but Europeans consider them a delicacy and have eaten them for years. The point is: Don't consider the foreign market from an American point of view. Cater to the tastes and preferences of your foreign customers. In the process you may discover many opportunities for sales that would not be possible for you to find in the United States.

Smoothing the road to exports

About 9 months ago, FAS organized an Office of Export Services to explore and help organize some of these dormant opportunities in the export market. The Office is working with States—through their departments of agriculture, offices of business and economic development, and extension services; with port authorities; with combination export managers; with the Air Transport Association; and with any other private or public entity interested in stimulating export activities for food and agricultural products. Other Federal departments and agencies such as the Department of Commerce and the Small Business Administration are also giving a helping hand.

The results have been most encouraging. All over our good land, greater interest in export trade and greater concern about it are expressing themselves in meetings on the subject, in the organization of regional export and trade councils, and in many other ways.

Many U.S. businessmen unfamiliar with international trade have a fear of the foreign market. Actually, exporting is not much different from doing business in the United States. There are poor credit risks overseas, as there are here. However, the few who are dubious risks are generally known and can be designated by the international banks and various credit services. Language is not so much of a problem as one might think. The foreign businessman usually speaks and understands English; if not, translators are readily available. There is a lot of paperwork in a foreign transaction, but this and other problems can be taken care of by experts. Combination export managers, freight forwarders, bankers, and transportation services can be particularly helpful in leading exporters through their first transactions.

How to begin

Potential exporters will first want to know whether they have a product that will sell in the foreign market. If, because of competition, duties, foreign tastes, or other reasons, there is little hope of a foreign market for a particular product, this is worth knowing, too, before time and money are risked.

Information like this is readily available from many sources. Among these is FAS, with agricultural attachés at posts in all leading markets abroad, as well as commodity and trade specialists in the Washington office, who can give a first appraisal of the exportability of a product. Trade associations, export brokers, export specialists in some of the State Departments of Agriculture, and the Department of Commerce with its 42 field offices throughout the country can also be of special assistance.

If preliminary findings indicate that an export market can be developed, the product is ready for test marketing. An easy and relatively inexpensive market test can be conducted at one of the U.S. exhibits at international trade fairs, or at U.S. Trade Centers overseas, in which FAS and the U.S. food trade participate each year. At any such test, a representative of the firm, with order book in hand, should be present to talk with buyers about prices, deliveries, and other pertinent information. If adequate interest develops, a foreign agent could be selected at this time.

Once the product appears to have initial acceptance, FAS trade specialists can be consulted about including it in one of the many in-store promotions of American foods, conducted by foreign store groups. This is an excellent way to measure customer reaction, for during the period of the special promotion the store managers and demonstrators keep close watch on how the various products are moving.

Leading foreign buyers can also be invited to visit the U.S. plant to see for themselves how the product is produced and marketed. Many of them will be meeting the U.S. food industry on its own home ground this year for the first time, at the Overseas Executive Food Buyers Conference at Atlantic City, N.J. This event is jointly sponsored by FAS and the Super Market Institute.

Others are not sitting still

The opportunities are there. The question is, Do we really want to take advantage of them? If we do not, others will. Hitherto we have proved to be much better salesmen of our foods at home than overseas. But if we ignore foreign sales potentials, they will be snapped up by others using our advanced production and marketing technology—American companies processing abroad or foreign producers who see unfilled demands.

Our big processors know where these sales potentials are and act accordingly. But what about our hundreds of smaller processors who benefit from the full impact of modern technology but are afraid of the export business or unaware of what it can mean to them?

Let's not forget—the development and proper servicing of foreign markets big and little takes a lot of hard, intelligent work. Other nations, some of them more export hungry than we are, are not sitting still. The Ivory Coast only recently developed the mass production of pineapples, and its output is now competing in European markets where our Hawaiian pineapple once was king. Ethiopia has awakened to Europe's market potential for iceberg lettuce and is now producing this vegetable and shipping it up north, where it is meeting American iceberg lettuce literally head on.

Our country is blessed with all kinds of climate, all kinds of soils, and the best producers and most advanced farm and food technology in the world. The only limitation on our capacity to export is our will to do it. We always have searched for new frontiers and found them. Today, when it comes to marketing the results of our agricultural labor and processing ingenuity, our frontiers are abroad, in the markets of the world.

CROPS AND MARKETS SHORTS

Weekly Report on Rotterdam Grain Prices

Prices held on an even level this past week, with some greater interest in supplies of U.S. corn.

Item	April 1	Change from previous week	A year ago
	Dol. per bu.	*Cents per bu.*	*Dol. per bu.*
Wheat:			
Canadian No. 2 Manitoba ..	1.93	0	2.03
USSR SKS-14	1.88	0	1.92
Australia Prime Hard	1.85	−1	(1)
U.S. No. 2 Dark Northern Spring: 14 percent	1.88	−1	1.91
15 percent	1.92	−1	1.95
U.S. No. 2 Hard Winter 14 percent	1.87	0	1.88
Argentina	1.80	0	1.88
U.S. No. 2 Soft Red Winter.	1.69	+2	1.68
Feedgrains:			
U.S. No. 3 Yellow	1.36	0	1.37
Argentine Plate	1.38	0	1.45
U.S. No. 2 Sorghum	1.32	0	1.45
Argentine-Granifero	1.17	+1	1.37

Note: All quoted c.i.f. Rotterdam for 30- to 60-day delivery.
[1] Not quoted.

South Africa Suspends Corn Exports

South Africa suspended corn exports in early March, apparently for the remainder of the marketing year (May-April). The latest official estimate of the current crop is 4.7 million tons, the smallest since 1965-66. If this estimate is reasonable, South African corn exports will not be significant during the 1969-70 marketing year, assuming that domestic use remains high and that minimum stocks are maintained. Domestic use of corn is not likely to decline because of the current shortage of sorghum and forage.

SUPPLY AND UTILIZATION OF SOUTH AFRICAN CORN

Year (May-April)	Stocks May 1	Production	Supply	Domestic use	Net exports	Stocks April 30
	Million metric tons	*Million metric tons*	*Million metric tons*	*Million metric tons*	*Million metric tons*	*Million metric tons*
1960-61.....	0.7	4.3	5.0	3.3	1.0	0.7
1961-62.....	.7	5.3	6.0	3.3	1.6	1.1
1962-63.....	1.1	5.6	6.7	3.0	2.6	1.1
1963-64.....	1.1	6.1	7.2	3.6	2.7	.9
1964-65.....	.9	4.3	5.2	3.8	1.1	.3
1965-66.....	.3	4.5	4.8	4.2	.4	.2
1966-67.....	.2	5.1	5.3	4.3	.3	.7
1967-68.....	.7	9.6	10.3	4.2	3.1	3.0
1968-69.....	3.0	5.3	8.3	4.8	[1] 2.6	[2] 9
1969-70.....	.9	[3] 4.7	5.6	[4] 4.8	—	—

[1] May-February. [2] Assuming no exports during March-April. [3] South African official estimate. [4] South African trade estimate.

World Barley and Oats Crops

World production of barley and oats in 1968 totaled a record 162 million metric tons, 8 percent above the previous record high production year of 1967.

World barley production in 1968 was a record 110.8 million tons, 7 percent above the 1967 record and 31 percent over the 1960-64 average. Barley yield, at 31 bushels per acre, was up 4 percent.

The world oat harvest totaled 50.9 million tons, up 8 percent, as yield gained 6 percent. Detailed tables, with analyses, appear in the March *World Agricultural Production and Trade—Statistical Report.*

Smaller Australian Canned Fruit Pack

Poor weather conditions and losses from brown rot cut 1969 production of Australian canned deciduous fruit to the lowest level in 4 years. The total 1969 pack is estimated at 9,510,000 cases, equivalent 24/2½'s, 13 percent below the 1968 level of 10,989,000 cases but 10 percent above the 5-year 1963-67 average. The peach crop in the Goulburn Valley and the Murrumbidgee Irrigation Area was hit by brown rot following January and February rains. Canned peach production is estimated at 4,800,000 cases, 7 percent below last season's. The apricot, pear, and mixed fruit packs are also lower.

AUSTRALIA'S SUPPLY AND DISTRIBUTION OF CANNED PEACHES

Item	Average 1963-67	1967	1968	1969
	1,000 cases 24/2½'s	*1,000 cases 24/2½'s*	*1,000 cases 24/2½'s*	*1,000 cases 24/2½'s*
Beginning stocks (Jan. 1) ..	600	996	814	359
Production	4,150	5,038	5,158	4,800
Total	4,750	6,034	5,972	5,159
Exports	2,592	3,657	4,113	3,500
Domestic disappearance	1,478	1,563	1,500	1,450
Ending stocks (Dec. 31)	680	814	359	209
Total distribution	4,750	6,034	5,972	5,159

AUSTRALIAN CANNED DECIDUOUS FRUIT PRODUCTION

Item	1967	1968	1969
	1,000 cases 24/2½'s	*1,000 cases 24/2½'s*	*1,000 cases 24/2½'s*
Apricots	1,054	723	710
Peaches	5,038	5,158	4,800
Pears	2,797	3,206	2,500
Mixed Fruit [1]	1,406	1,902	1,500
Total	10,295	10,989	9,510

[1] Includes two fruits, fruit cocktail, and fruit salad.

Current season exports of all canned deciduous fruit are expected to fall below the record level of 8,545,000 cases reached during 1968. Exports of peaches are forecast at 3,500,000 cases, 15 percent below the 1968 total of 4,113,000 cases, and 4 percent below 1967. The United Kingdom is expected to remain the largest market for Australian canned fruit.

The Australian Government has allocated funds for devalu-

ation compensation similar to those used during 1968 to compensate the industry for losses suffered as a result of the November 1967 devaluation of the British pound. An upper limit of US$4.3 million dollars has been established for canned fruit including pineapple during 1969.

U.S. Cotton Exports Low

U.S. raw cotton exports in February totaled 55,384 bales (480 lb. net), about the same as a month earlier but sharply lower than the 447,000 bales for February 1968. The dock strike continued through February.

Exports in the first 7 months (August-February) of the current season totaled 1,199,000 bales, only about one-half the 2,346,000 bales shipped during the same period a year earlier. This 7-month total is the smallest since 1955-56 when 842,000 bales were shipped during the same period.

U.S. COTTON EXPORTS BY DESTINATION
(Running bales)

Destination	Year beginning August 1				
	Average	1966	1967	Aug.-Feb.	
	1960-64			1967	1968
	1,000 bales	*1,000 bales*	*1,000 bales*	*1,000 bales*	*1,000 bales*
Austria	23	4	1	1	0
Belgium-Luxembourg	121	52	45	22	13
Denmark	14	8	10	6	1
Finland	17	15	11	7	2
France	319	163	148	86	43
Germany, West	269	159	100	66	12
Italy	345	263	253	153	30
Netherlands	110	31	36	12	10
Norway	13	10	7	3	3
Poland	125	78	77	46	92
Portugal	21	1	8	1	3
Spain	74	1	7	2	4
Sweden	81	71	75	45	21
Switzerland	74	79	60	42	17
United Kingdom	244	153	125	74	22
Yugoslavia	112	139	67	49	0
Other Europe	17	11	25	10	3
Total Europe	1,979	1,238	1,055	625	276
Australia	61	17	17	15	0
Bolivia	7	9	0	0	0
Canada	353	297	142	99	54
Chile	18	3	1	(1)	(1)
Colombia	3	1	0	0	0
Congo (Kinshasa)	6	34	13	0	0
Ethiopia	9	9	22	12	7
Ghana	1	15	12	5	9
Hong Kong	148	183	299	147	104
India	314	289	342	300	5
Indonesia	40	161	70	(1)	47
Israel	15	2	4	1	1
Jamaica	4	5	1	(1)	1
Japan	1,192	1,293	1,103	572	259
Korea, Republic of	261	372	351	245	206
Morocco	12	14	35	12	5
Pakistan	14	3	18	16	0
Philippines	123	134	154	74	55
South Africa	41	38	23	11	5
Taiwan	209	373	378	148	92
Thailand	34	70	90	37	30
Tunisia	2	15	14	8	0
Uruguay	6	0	0	0	0
Venezuela	8	1	(1)	(1)	0
Vietnam, South	46	66	24	8	26
Other countries	18	27	38	11	17
Total	4,924	4,669	4,206	2,346	1,199

[1] Less than 500 bales.

February U.S. Tobacco Exports

U.S. exports of unmanufactured leaf and tobacco products in February continued to be affected by the East Coast and Gulf ports dock strike. Only 4.2 million pounds of leaf were shipped in February representing slightly less than 10 percent of the volume of leaf exports in February 1968. Exports of manufactured products in February were also down substantially at a declared value of $8.3 million compared with $12.1 million in the same month a year ago.

Fiscal year exports from July 1968 through February 1969 of unmanufactured tobacco currently total 367.1 million pounds, about 10 percent less than the 409.7 million pounds in the same 8-month period of 1967-68. Since the ports from which tobacco is usually shipped are now in operation, exports will likely be more normal.

U.S. EXPORTS OF TOBACCO PRODUCTS

Kind	February		January-February		Change from 1968
	1968	1969	1968	1969	
Cigars and cheroots					*Percent*
1,000 pieces	7,380	6,271	10,176	7,367	—27.6
Cigarettes					
Million pieces	1,940	1,525	3,539	2,230	—37.0
Chewing and snuff					
1,000 pounds	19	(1)	47	(1)	
Smoking tobacco in pkgs.					
1,000 pounds	76	67	203	106	—47.8
Smoking tobacco in bulk					
1,000 pounds	1,861	226	2,339	512	—78.1
Total declared value					
Million dollars	12.1	8.3	21.0	12.4	—41.0

[1] Less than 500 pounds.
Bureau of the Census.

U.S. EXPORTS OF UNMANUFACTURED TOBACCO
(Export Weight)

Kind	February		January-February		Change from 1968
	1968	1969	1968	1969	
	1,000 pounds	*1,000 pounds*	*1,000 pounds*	*1,000 pounds*	*Percent*
Flue-cured	32,090	2,048	65,500	8,475	—87.1
Burley	3,012	1,054	5,362	1,701	—68.3
Dark-fired Ky.-Tenn.	690	565	2,776	571	—79.4
Va. Fire-cured [1]	482	164	1,018	596	—41.5
Maryland	1,461	110	1,736	110	—93.7
Green River	89	0	201	0	—
One Sucker	7	0	7	0	—
Black Fat	258	14	531	14	—97.4
Cigar wrapper	363	42	626	79	—87.4
Cigar binder	63	10	207	10	—95.2
Cigar filler	17	2	36	14	—61.1
Other	6,260	215	11,088	797	—92.8
Total	44,792	4,224	89,088	12,367	—86.1
	Mil. dol.	*Mil. dol.*	*Mil. dol.*	*Mil. dol.*	*Percent*
Declared Value	39.7	3.5	74.6	12.3	—83.5

[1] Includes sun-cured.
Bureau of the Census.

Crops and Markets Index

U.S. DEPARTMENT OF AGRICULTURE
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Availabilities of Foodgrains in East Pakistan Shrink

A two-pronged food problem is affecting East Pakistan and makes the outlook for better nutrition for that area's rapidly growing population somewhat dim. One part of the problem is immediate, and the other will have effects in a few months.

The immediate problem is that East Pakistani farmers, although they hold supplies of rice, are reluctant to deliver their goods to cities because of the recent political disturbances. Critical food shortages have developed in Dacca and some other scattered urban areas to the north. Many city shops closed because of exhausted supplies and the fear of mobs. Rice prices have increased sharply, and city dwellers are seeking rice from relatives in the countryside for hoarding.

The long-range food problem is that because of decreased production and expected decreased imports East Pakistan's total supply of cereals in 1969 will be less than that in 1968 per capita. Already food supplies for the 65 million people in East Pakistan are about 4 percent below those of a year ago on a per capita basis.

The 1968-69 total milled rice output for East Pakistan, which is chiefly a rice-growing area, is estimated at 10.9 million metric tons. This production is slightly lower than the output of about 11.2 million tons of milled rice in 1967-68. Floods in mid-1968 decreased the winter rice crop (harvested from October through February), which accounts for over half of East Pakistan's rice production. Partially offsetting this disappointment, however, are especially good yields expected from the smaller spring crop (harvested from April through June).

Wheat, which has become an important cereal for consumption in East Pakistan's cities, has been mainly imported in the past. In 1968 about 800,000 metric tons were shipped to East Pakistan while the area produced only 60,000 tons. Most of the wheat used in 1968 was supplied by the United States under P.L. 480; a smaller amount was sent on credit through the U.S. Commodity Credit Corporation. Canada gave 70,000 tons of wheat to East Pakistan, and Australia sent some wheat flour for people affected by the mid-1968 floods.

For 1969, little additional wheat under P.L. 480 is scheduled to be shipped to East Pakistan—nor are any shipments of rice from foreign sources expected. West Pakistan plans to deliver 200,000 tons of rice of the new high-yielding varieties soon. But to bring the per capita supplies of cereals to average levels in East Pakistan, about 1.4 million tons of wheat and rice would be needed.

West Pakistan is expected to be self-sufficient in foodgrains in 1969 and may even have some surplus; but it is questionable whether West Pakistan will be able to meet East Pakistan's full foodgrain needs during 1969.

—By JOHN B. PARKER
Foreign Regional Analysis Division, ERS

New Export Agency Created

A new Export Marketing Service has been established in the Department of Agriculture by Secretary of Agriculture Clifford M. Hardin. The agency's principal objective will be to help American agriculture meet more effectively the competition from other exporting nations in world markets.

Secretary Hardin said that the mission of the new agency will be to develop and recommend policies and programs aimed at boosting U.S. farm exports.

The new EMS was created by transferring to it selected export functions from other agencies. From the Foreign Agricultural Service were transferred the office of the General Sales Manager (including dollar credit sales), Barter and Stockpiling, Program Operations Division, and Ocean Transportation Division. From the Agricultural Conservation and Stabilization Service was transferred the Wheat Export Subsidy and Marketing Branch and policy for export sales of commodities owned by Commodity Credit Corporation.

Clifford G. Pulvermacher, career USDA official, was named General Sales Manager to head the Export Marketing Service. Mr. Pulvermacher has had more than 25 years of experience in administering domestic and export agricultural programs. Associate General Sales Manager will be Frank G. McKnight who comes to the Department from private industry where he has had many years of experience in cotton merchandising and oilseed processing and sales.

Secretary Hardin also announced that the former International Agricultural Development Service would be made a part of the Foreign Agricultural Service.

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